

Date: Fri, 19 Mar 93 20:42:01 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #349
To: Info-Hams

Info-Hams Digest Fri, 19 Mar 93 Volume 93 : Issue 349

Today's Topics:

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 Plate spacing for air variable caps.
 Ramsey fox vaporware
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 TS-850 - microprocessor & sidetone
 Washing Radios
 White House To Auction Airwaves
 Yaesu FT-530 vs. TH-28A

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 19 Mar 93 21:33:50 GMT
From: ogicse!uwm.edu!cs.utexas.edu!gerald@cc.utexas.edu!gerald@cc.utexas.edu!
usenet@network.UCSD.EDU
Subject: Bug Stuff
To: info-hams@ucsd.edu

The following are two Emails I got from Randy, KN6W (I think). They have some
very good information in them, and I found them of use. Hopefully, they will
help out all of y'all bug people who want to know about these fine pieces

of equipment.

Following is an article about dating Post-World War II bugs. Enjoy.

I've gotten a couple of responses from my Boatanchors List message yesterday, including one from someone who wondered what model Vibroplex he had. Keep 'em coming.

I thought I'd post an algorithm for identifying post-WWII Vibroplex keys, which are by far the most common models you'll see at hamfests, swap meets, etc. Vibroplex was up to about Serial Number 150,000 or so at the end of WW2.

For keys made from the late 50s to the late 70s, there's a shortcut -- the model name was stamped in ink on the underside of the base. If that fails, here's the algorithm:

IDENTIFYING POST-WW3 VIBROPLEX SEMIAUTOMATIC KEYS (BUGS)

Randy Cole KN6W Internet: cole@soldev.tti.com

1. Is the speed weight on a round rod or a flat bar? If it's on a round rod go to Step 4.
2. Is the damper roller suspended from a flat bar which is supported by two round posts? If so, it's a LIGHTNING BUG. and if the base is chrome and the finger and thumb pieces are red, it's a DELUXE LIGHTNING BUG.
3. The damper should be a roller inside a simple U-shaped bracket on one side of the speed weight bar. If the base is 3.5" wide, it's a CHAMPION, otherwise if the base is narrow (3" wide), it's a ZEPHYR. Also, a ZEPHYR will have a circuit closer, a CHAMPION won't.
4. The damper assembly will be either the overhanging pendulum type or a U-shaped casting with a damper wheel on one leg of the "U". If the damper assembly is the U-shaped casting, the base will be narrow (2.5" wide), and the key is an early-model BLUE RACER. If the base is chrome and the finger and thumb pieces are red, it's a early-model DELUXE BLUE RACER.
5. If the key has an overhanging pendulum damper, and the base is

narrow (2.5" wide), the key is a late-model BLUE RACER. If the base is chrome and the finger and thumb pieces are red, it's a late-model DELUXE BLUE RACER.

6.The base should be 3.5" wide. If the base is painted, it's an ORIGINAL. If the base is chrome and the finger and thumb pieces are red, it's a DELUXE ORIGINAL. If the base is chrome with a gold-plated top plate, it's a PRESENTATION.

These rules hold for all post-WWII Vibroplex semiautomatic keys. Postwar keys made in New York will all have an "833 Broadway" address on the nameplate, a serial number over 150,000 or so, and the nameplate riveted on. In early 1979, Vibroplex moved to Maine. All keys made in Maine have the nameplate glued on, not riveted on. Being a thrifty outfit, Vibroplex used the rest of the New York nameplates, which by that time had serial numbers in the 370,000-380,000 range. When they ran out of the New York nameplates, they took the address off the nameplate and started the serial numbers over at 40,000. They're now up to about 68,000.

In the mid 50s, Vibroplex changed their standard base paint color from black to gray. Some beige ones and brown ones were also made.

If you see a Vibroplex with a gray base, red finger and thumb pieces, and a serial number around 140,000 +/-, it's a WW2 Deluxe model. Chrome was a war material so Vibroplex substituted battleship gray crackle paint. I'm looking for a couple of those, so please let me know and I'll try to buy it, trade for it, or steal it :-).

Randy Cole KN6W
cole@loretta.la.ca.us
(310) 450-9111, x2628 days

Following is the article about bug adjustment.

Buddy:

OK, I'll take a shot at it. There are several articles from antiquity about how to do it, but here is how I do it. These steps are for Vibroplexes or keys of the same design, which includes >95% of the bugs out there.

1. First put the bug in front of you with the thumb and finger pieces (knobs, paddles) closest to you. Now we can talk about front and back and left and right. This assumes that you have a right-hand model bug. If you have a left-hand model bug you can read this message in a mirror :-). Loosen all the adjustment screws and back them off. Leave some tension on the coil springs, however, so that the bug will operate.

2. First adjust the right-hand stop screw (the only adjustment on the right-hand side of the bug) so that the pendulum (the vibrating rod that has the speed weight on it) just rests lightly against the damper wheel. This should assure that the damper stops the vibration after a string of dots, which is an absolute must.

3. Now adjust the dash lever contact screw (the front adjustment screw on the left) to allow the desired amount of travel on dashes. This is an individual thing. Most people recommend a healthy amount of travel to start with.

4. Next adjust the dot lever stop screw (further back on the left side) to allow the desired amount of travel on dots. I try to make travel on dots and dashes about the same.

5. Now coarse-adjust the dot contact screw (the one furthest to the back on the left). You do this by holding the thumbpiece to the right so that the dot lever is against its stop screw, and then moving the screw-mounted contact toward the vibrating spring-mounted contact until they touch.

6. The next step is to fine-tune the dot contact screw so that the weight of the dots is right. In most cases, you can adjust a Vibroplex so that it makes a hundred or more dots before the vibration stops and the vibrating contact comes to rest against the stationary contact. This will probably result in dots that are too short, or "thin". It's better to adjust things so that the bug makes ten or twenty dots before the vibration stops. One method is to listen to a keyer operating at the same speed and adjust the bug until the dots sound the same.

7. Now adjust both tension springs to suit your taste.

8. If you change the position of the speed weight you may need to tweak the dot contact adjustment.

Miscellaneous:

There's a big variation in the stiffness of the pendulum spring from one bug to the next. This is what determines the dot speed range of the bug with a given speed weight. In the case of Vibroplexes, the models with a flat pendulum rod (Champion, Lightning Bug, etc.) generally have a slower speed range than the round-rod models (Original, Blue Racer, etc. Blue Racers generally have the stiffest springs. To slow down a bug simply add more weight to the pendulum rod.

If you're not going to use a bug for a long time it's best to loosen the tension adjustments.

--

Buddy Brannan, KB5ELV, Riff-Raff #4

The World's Youngest Old Fart :-)

Internet: davros@ccwf.cc.utexas.edu

"One foot in a brave new world, one foot still in bed ..."

--from Those Who Dig: "Mr. Banana Head"

Date: 19 Mar 93 23:17:44 GMT

From: usc!howland.reston.ans.net!agate!stanford.edu!nntp.Stanford.EDU!

abercrombie.Stanford.EDU!paulf@network.UCSD.EDU

Subject: Bug Stuff

To: info-hams@ucsd.edu

davros@ccwf.cc.utexas.edu (Buddy Brannan) writes:

> IDENTIFYING POST-WW3 VIBROPLEX SEMIAUTOMATIC KEYS (BUGS)

^

|

...well, probably by the "molten" look...

-=Paul Flaherty, N9FZX | "We are meant to be masters of destiny, not victims

->paulf@Stanford.EDU | of fate." -- Ronald Reagan

Date: Fri, 19 Mar 1993 23:45:39 GMT

From: noc.near.net!gateway!miki!wpns@uunet.uu.net

Subject: CTIA REPLY COMMENTS TO FCC DOCKET 93-01 (scanner ban)

To: info-hams@ucsd.edu

So let me get this straight: They want people to build transverters with microprocessors in them that will block translation of cellphone frequencies. I'm envisioning a set of thumbwheel switches on the

case, and a legal requirement for the user to enter the frequency they are currently listening to, with the micro programmed to cut the power in certain ranges... Sheesh!

--

Willie Smith
wpns@pictel.com
N1JBJ@amsat.org

Date: 19 Mar 93 05:15:51 EST
From: agate!howland.reston.ans.net!sol.ctr.columbia.edu!news.columbia.edu!psinntp!psinntp!arrl.org@ames.arpa
Subject: Getting CQ Ham Radio (JAPAN)
To: info-hams@ucsd.edu

Foreign subscriptions are handled by the following distributor
I.P.S. Japan
3-11-6 Iidabashi
Chiyoda, Tokyo 102
Japan
Tel:+81 3-3238-0700

current rates for North America are 13680 yen (roughly \$110)
for surface mail delivery or 42480 yen for air mail (12 issues).

Also available through the Kinokuniya Bookstore in San Francisco,
San Jose, and New York.

Date: Fri, 19 Mar 93 01:06:26 GMT
From: pacbell.com!sgiblab!zaphod.mps.ohio-state.edu!cs.utexas.edu!
gerald@cc.utexas.edu!slcs.slb.com!leo.asc.slb.com!sjsca4!jones@network.UCSD.EDU
Subject: Home Made antenna
To: info-hams@ucsd.edu

Gary Coffman (gary@ke4zv.uucp) wrote:

: In article <1993Mar12.023051.10972@fuug.fi> an15663@anon.penet.fi writes:
: >
: >I am so embarassed to ask this, I am posting anonymously. 8-)
: >
: >Here is a "beginner" question for ya. I have a 2-meter rig that I
: >would like to attach a better antenna on to. just so I can listen to
: >the locals a bit better .. would it be crazy to thing I can use coax
: >(RG-58) with BNC connectors to act as a temporary antenna? One additional
: >question, I assume this would have to be a certain resistance .. so

```

: >would soldering a 50 ohm resistor across the end (the end not connected
: >to the radio, of course) be sufficient to allow the coax to be
: >"functional" as an antenna?
:
: No, this will make it function as a dummy load. If the coax is any
: good, it shouldn't act as an antenna at all. Since real coax does
: leak, it might pick up strong local signals, but not very well.
:
: What you want to do is indeed attach a better antenna to the coax.
: These are easy to make. A 1/4 wave groundplane antenna can be made
: with four 19 inch lengths of stiff wire and a coax connector. A
: rollup J-pole can be made from a 54 inch length of TV twinlead.
: Of course a vertical dipole can be made from two 19 inch wires.
: And if coax is all you've got, a sleeve dipole can be constructed
: by folding back the braid 19 inches from the end. I posted a
: drawing a few days ago.
:
: Go to the library and take a look at the ARRL Antenna Book or
: the ARRL Handbook for detailed information on constructing
: any of these antennas.
:
: Gary
:
: --
: Gary Coffman KE4ZV          | You make it,      | gatech!wa4mei!ke4zv!gary
: Destructive Testing Systems | we break it.     | uunet!rsiatl!ke4zv!gary
: 534 Shannon Way           | Guaranteed!      | emory!kd4nc!ke4zv!gary
: Lawrenceville, GA 30244    |                   |

```

Another thing you can do, if you want something VERY temporary, and for recieve only, is to go down to Radio Shack and get a BNC-to-binding post adapter, and a package of clip-leads (i.e., pieces of wire with aligator clips on both ends). Attach the BNC-to-binding post adapter to the radio, then use a cliplead to attach the red bindingpost to the outside part of the BNC on the coax. Actually, you could use any piece of wire for this, but the shield part of the coax will be fine. It'll work best if the length is an odd multiple of 1/4, i.e., 1/4, 3/4, 5/4, etc., wavelength. (As noted by others, 1/4 wavelength for 2M is about 19 inches.) Anything that is line-of-sight should put enough signal into this for you to listen to.

Note, however, that something like this may be a bit too sloppy to work well for transmitting. But it should be just fine for recieving. Check the libraries in your area for the books mentioned by others, as well as QST magazine, 73 magazine (the full name's a bit longer, but I don't recall all of it), CQ magazine, and Radio Fun magazine. They all publish articles on home-built 2M antennas from time to time, and reading through the past couple of years of any or all should produce a few interesting designs.

Clark

P.S. The only really dumb question is the one that's not asked. If you want, please feel free to e-mail me directly. I'm sure the same goes for most, if not all, of the others who post here. Hams are always glad to help beginners! (Well, almost always. If you have the incredibly bad luck of running into one of the bad apples who isn't, please try the next ham! ;-)

--

Disclaimer: The opinions expressed above are mine and not those of Schlumberger because they are NOT covered by the patent agreement!

Phone: (602) 345-3638 RF: N7RPQ
Snail: Clark Jones, Schlumberger Technologies, 7855 S. River Pkwy #116, Tempe,
AZ 85284-1825

Date: 19 Mar 1993 22:52:19 GMT
From: dog.ee.lbl.gov!pasteur!agate!darkstar.UCSC.EDU!cats.ucsc.edu!
haynes@network.UCSD.EDU
Subject: HRO query
To: info-hams@ucsd.edu

In article <1993Mar19.162527.20525@ucl.ac.uk> Tim Phillips writes:
>I have acquired an HRO reciever, but no PSU. There is a 4-pin plug on it
>which I assume is HT/Ground/Filament. Before I disturb the tubes and
>circuitry, can someone tell me the voltages for the HT and filament?
>(I dont have a schematic or operating manual - we're talking WW2 bomber kit
> here :-))
>
>many thanks. 73

Talk about an unreplyable posting address - Tim Phillips somewhere out
in the world... hi.

Anyway what I couldn't reply to by mail is that I don't know the answer
but in general you don't want to put the voltage to an oldie like that
until you have done some work on it. Most of the bypass caps will be
either shorted already or ready to short as soon as the power is applied.
Then they'll take out the resistors in series with them.

--

haynes@cats.ucsc.edu
haynes@cats.bitnet

"Ya can talk all ya wanna, but it's dif'rent than it was!"
"No it aint! But ya gotta know the territory!"

Meredith Willson: "The Music Man"

Date: Fri, 19 Mar 1993 20:34:12 GMT
From: newshub.nosc.mil!vela.acs.oakland.edu!cs.uiuc.edu!wupost!uwm.edu!
zaphod.mps.ohio-state.edu!darwin.sura.net!sgiblab!sgigate!odin!
chuck.dallas.sgi.com!adams@network.UCSD.EDU
Subject: Linears wanted?
To: info-hams@ucsd.edu

In article <1993Mar19.192400.14896@proton.llumc.edu>, root@proton.llumc.edu
(Operator) writes:

|>
|>
|> In article <1993Mar18.093743.6311@train.ufh.ac.za>
|> inus@aloe.ufh.ac.za (& Scheepers) writes:
|>
|> > I'm looking for some linear amplifiers for 27 - 29 MHz.
|> > The bigger the better. Up to 100W if possible...
|>
|> Let me guess...suitable for 5 Watts input, right?
|>
|>
|> Barrie, K0WWG

as any good trucker will know, just stop at any CB repair shop along
the interstate/intrastate. about \$1 per watt output. :-) and that's
the truth.

ever work 10 mtr mobile with the Uniden and note the front-end overload
is proportional to the number of 18 wheel vehicles that you can see from
horizon to horizon? and sometimes further than that.....

73 de k5fo chuck "keep the greasy side down as you cruise the hiway"

Date: Fri, 19 Mar 1993 21:15:56 GMT
From: newshub.nosc.mil!vela.acs.oakland.edu!cs.uiuc.edu!ux1.cso.uiuc.edu!
howland.reston.ans.net!zaphod.mps.ohio-state.edu!darwin.sura.net!sgiblab!
news.kpc.com!kpc!nat@network.UCSD.EDU
Subject: Plate spacing for air variable caps.
To: info-hams@ucsd.edu

Hello,

I am attempting to build a transmatch. My Kenwood 520s is able to generate
about 125 watts. What plate spacing should I choose for my air variable caps.

Thanks in advance.

Nat.

--

Natarajan Gurumoorthy KD2ZS/AE Kubota Pacific Computer, Inc.
nat@kpc.com 2630 Walsh Avenue
Phone 408 987 3341 Santa Clara, California 95051.

Date: Fri, 19 Mar 1993 21:20:56 GMT
From: netcomsv!netcomsv!attain!icd.teradyne.com!news@decwrl.dec.com
Subject: Ramsey fox vaporware
To: info-hams@ucsd.edu

I just got off the phone with Ramsey Electronics, and it seems that their nice 'Sly Fox' automatic fox hunt transmitter is vaporware. Even though it was in their January catalog (and not listed as 'coming soon...'), it won't be available till late summer, at the earliest. Oh well, I guess they have missed the foxhunt season... I wish they would have mentioned it when I ordered it in January (then they were promising mid-February)

/mike

--

\\| Michael L. Ardai N1IST Teradyne ATG Boston

/|\ ardai@maven.dnet.teradyne.com

Date: Fri, 19 Mar 93 18:45:08 GMT
From: dog.ee.lbl.gov!hellgate.utah.edu!cs.utexas.edu!gerald@cc.utexas.edu!
slcs.slb.com!leo.asc.slb.com!sjsca4!jones@network.UCSD.EDU
Subject: Too many C-64s [was: Re: Knwd TS-440 Computer Cntrl Opt, anyone have
experience?]
To: info-hams@ucsd.edu

Andrew Scott Beals -- KC6SSS (bandy@catnip.berkeley.ca.us) wrote:
: There certainly seems to be enough of them, even among the packet
: crowd. This leads to XT boxes going for \$300+, even here in
: Silicon Valley.

Hmmm... maybe I could pick up a few extra bucks... they were going for about
\$150 at the Scottsdale (suburb of Phoenix) hamfest last weekend... or
would that be too much like "carrying coals to Newcastle"? ;-) ;-) ;-)

--

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because they are NOT covered by the patent agreement!

Phone: (602) 345-3638 RF: N7RPQ
Snail: Clark Jones, Schlumberger Technologies, 7855 S. River Pkwy #116, Tempe,
AZ 85284-1825

Date: Fri, 19 Mar 1993 20:33:06 GMT
From: noc.near.net!lynx!lkay@uunet.uu.net
Subject: TS-820 vs. TS-820S: Differences ?
To: info-hams@ucsd.edu

In article <1993Mar18.180603.6718@cbnewsm.cb.att.com>,
wx4d@cbnewsm.cb.att.com (james.v.morgan..jr) writes:

>
> Can anyone summarize the differences between the Kenwood TS-820 and
> TS-820S ? I have heard that the '820 had no digital frequency display,
> but that they were otherwise the same. Is this correct?

Yes.

73, Len

Dr. Leonard Kay, KB2R | "But we are not dealing with the
Electrical and Computer Engineering | normal world. We are chasing DX."
Northeastern University, Boston | -- W9KNI, 'The Complete DXer'
NU ARC: W1KBN 145.31(-) |
Packet: KB2R@K1EA | #include <disclaimer.h>

Date: Fri, 19 Mar 1993 18:26:42 GMT
From: rit!isc-newsserver!ultb!cep4478@cs.rochester.edu
Subject: TS-850 - microprocessor & sidetone
To: info-hams@ucsd.edu

In article <1993Mar18.153517.5884@mnemosyne.cs.du.edu> jman@nyx.cs.du.edu (John
Man) writes:
> Does anybody know anything about the microprocessor contained in the TS-850 ?
> The lettering on the chip says <micro>PD78C10G-36. Is this a microcontroller of
> some sort ?

The 7810 series is from NEC. This are a pretty neat line of cheap micro-
controllers. The 10G-36 is romless and is an 8-bit microcontroller with

a 16 bit ALU, 256 bytes of built-in RAM, two zero-crossing detectors and 8-bit timers, an 8-channel/8-bit A/D converter, built-in UART, and a sort of neat little priority interrupt controller (more than you usually get from an 8-bit microcontroller).

The only thing that bothers me about it is the package. These things come in something called a QUIP, which is like a DIP except that there are two rows of pins on each side of the package. The pins are very close together, and nobody makes a wire-wrap socket for it.

NEC makes some nifty stuff. Right now, I am using mostly Motorola stuff, but it's getting old having to deal with Motorola support and delivery problems all the time.

--

Christopher E. Piggott, WZ2B
President
Rochester Institute of Technology
Amateur Radio Club K2GXT

cep4478@ultb.isc.rit.edu
wz2b.ampr [44.69.0.1]
wz2b @ WB2PSI.#WNY.NY.USA.NA
CEP4478@RITVAXA.BITNET

Date: 19 Mar 93 18:26:48 GMT
From: newshub.nosc.mil!vela.acs.oakland.edu!cs.uiuc.edu!ux1.cso.uiuc.edu!
howland.reston.ans.net!newsserver.jvnc.net!netnews.upenn.edu!prijat!
triangle.cs.uofs.edu!bill@network.UCSD.EDU
Subject: Washing Radios
To: info-hams@ucsd.edu

And then there is cleaning the heat exchanger on the Amplifier section of the AN.GRC-106A. The manual recommends taking it down to the motor pool and using the hose at the truck washing point. Don't even have to wait for it to dry, just fire it back up when your thru.

Sure would love to get my hands on a 106. Had a real nice amplifier. .1 watts in 350-500 watts out. a pair of 4CX350's in the output meant you could run key down RTTY at full power for hours at a time. I know. I used to do it. I wonder if the ham in Iceland I worked one night ever figured out that I was only running 85hz shift. :-)

bill KB3YV

--

Bill Gunshannon	"There are no evil thoughts, Mr. Reardon" Francisco
bill@cs.uofs.edu	said softly, "except one; the refusal to think."
	#include <std disclaimer.h>

Date: 19 Mar 93 12:05:57 CST
From: timbuk.cray.com!hemlock.cray.com!cherry10!dadams@uunet.uu.net
Subject: White House To Auction Airwaves
To: info-hams@ucsd.edu

|this
|>will affect everything from new wireless phones to emerging technologies for
| ^^^ ^^^^^^^^^^
|>transmitting radio and television programs.
|

If this is only to affect new allocations then it might seem like a good thing.
It would be one more hinderance to any group trying to take current chunks
of spectrum.

--David C. Adams Statistician Cray Research Inc. dadams@cray.com

 Old Sourdoughs never die. They just ferment away.

Date: 19 Mar 93 23:55:05 GMT
From: ogicse!emory!europa.eng.gtefsd.com!howland.reston.ans.net!agate!
uclink.berkeley.edu!acollins@network.UCSD.EDU
Subject: Yaesu FT-530 vs. TH-28A
To: info-hams@ucsd.edu

In article <C45E3v.9Aq@fc.hp.com> paulc@fc.hp.com (Paul Christofanelli) writes:
>Ron says:

>> Actually, for intermod problems the FT470 is WORSE than most other dual
>> banders.

>>

>Daniel says:

>> I own an FT-470 and I find it very sensitive to intermods...

>>

>

>But, Andy's FT-470 seems to work ok. The FT-470 I borrowed for a while
>seemed to have some troubles also, but another friend's doesn't. Hmmm.

>I heard there was a mod that Yaesu would do (for a price) that "fixed"
>the problems. Maybe this explains the differences? Or, maybe it's just
>where you live and what pagers, etc., are near you.

>

>-Paul Christofanelli KG0CZ

I don't know if I'm the "Andy" you refer to (I did post to say that

I love my 470 and I haven't had any problems with the intermod though).

One other interesting tidbit to add on the subject of variations in the rigs. I remember when I pulled down the mod sheet for the unit, there was a hardware mod for 130-180 rx and 140-150 tx. My response was "strange, my radio came from the factory that way, and the ARS works just fine too." (The mod sheet indicated that doing the mod might destroy the ARS (Automatic Repeater Shift -- the rig "knows" the "proper" offsets for the 2-meter band, and can change them automatically as you tune, if you enable it)). They definately do make changes as the design progresses... I wonder.

In case your wondering, my rig was bought around Jan 1992 or so (I received it as a gift, so I'm really not sure).

Andy Collins, KC6YEY
acollins@uclink.berkeley.edu

End of Info-Hams Digest V93 #349
